

REMARKS

In the June 2, 2004 office action, the Examiner objected to the specification based on formal matters. The Examiner rejected Claims 1-3, 6, 8, 15/1-3, 15/6, 15/8, 16/15/1-3, 16/15/6, 16/15/8, 17, 19/17, 20 and 22 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,610,435 ("Pfau et al"). The Examiner also rejected Claims 5, 9-10, 12-14, 15/5, 15/9-10, 15/12-14, 16/15/5, 16/15/9-10, 16/15/12-14, 23, 24 and 26-28 as being obvious based on Pfau et al in view of U.S. Patent No. 2,734,738 ("Even"). The Examiner objected to Claims 4, 7, 11, 15/4, 15/7, 15/11, 16/15/4, 16/15/7, 16/15/11, 18, 19/18, 21 and 25 as being dependent on rejected base claims, but indicated that the claims would be allowable if rewritten in independent form.

The June 2, 2004 office action and the references cited therein have been carefully considered. In view of the amendments presented herewith, and based on the following remarks, Applicant believes that the instant application is in condition for allowance.

Specification

Applicant has amended the Abstract of the Invention in response to the Examiner's remarks. The amendments are shown in the replacement paragraph provided on page 2 of this Amendment.

Claim Rejections - 35 U.S.C. § 102

The Examiner indicated that dependent Claim 4 contains allowable subject matter. Applicant has amended Claim 1 to recite the allowable subject matter of Claim 4, namely, first and second elongated baffles disposed over the first and second slots, respectively, and means for supporting the first and second baffles in spaced relation from the first and second slots. Claim 1 has also been amended to recite a cylindrical hot zone enclosure. Since amended Claim 1 contains the allowable subject matter of Claim 4, Applicant believes that amended Claim 1 is in allowable form.

Claims 2, 3, 6, 8, 15/1-3, 15/6, 15/8, 16/15/1-3, 16/15/6 and 16/15/8 are dependent on amended Claim 1 and incorporate the allowable subject matter recited in amended Claim 1. Therefore, Claims 2, 3, 6, 8, 15/1-3, 15/6, 15/8, 16/15/1-3, 16/15/6 and 16/15/8 are also believed to be in allowable form.

The Examiner indicated that dependent Claim 18 contains allowable subject matter. Applicant has amended Claim 17 to recite the allowable subject matter of Claim 18, namely, first and second elongated baffles disposed over the first and second slots, respectively, and means for supporting the first and second baffles in spaced relation from the first and second slots. Claim 17 has also been amended to recite a cylindrical hot zone enclosure. Since amended Claim 17 contains the allowable subject matter of Claim 18, Applicant believes that amended Claim 17 is in

allowable form.

Claims 19/17, 20 and 22 are dependent on amended Claim 17 and incorporate the allowable subject matter recited in amended Claim 17. Therefore, Claims 19/17, 20 and 22 are also believed to be in allowable form.

Claim Rejections - 35 U.S.C. § 103

Claims 5, 9, 10, 12-14, 15/5, 15/9-10, 15/12-14, 16/15/5, 16/15/9-10, 16/15/12-14 are dependent on amended Claim 1 and incorporate all the elements recited in amended Claim 1, including the allowable subject matter added from Claim 4. Therefore, Claims 5, 9, 10, 12-14, 15/5, 15/9-10, 15/12-14, 16/15/5, 16/15/9-10, 16/15/12-14 are believed to be in allowable form.

Claims 23, 24, 26-28 are dependent on amended Claim 17 and include all the elements recited in amended Claim 17, including the allowable subject matter added from Claim 18. Therefore, Claims 23, 24, 26-28 are believed to be in allowable form.

Allowable Subject Matter

The Examiner objected to Claims 4, 7, 11, 15/4, 15/7, 15/11, 16/15/4, 16/15/7, 16/15/11, 18, 19/18, 21 and 25 as being dependent on rejected base claims, but indicated that the claims would be allowable if rewritten in independent form. Applicant has amended claims 4, 7, 11, 18, 21 and 25 into independent form,

as suggested by the Examiner. Therefore, Applicant respectfully submits that amended claims 4, 7, 11, 18, 21 and 25 are in allowable form.

Claims 15/4, 15/7, 15/11, 16/15/4, 16/15/7, 16/15/11 and 19/18 are each dependent on, and incorporate elements recited in, one of Claims 4, 7, 11 and 18. As noted above, Claims 4, 7, 11 and 18 have been amended into allowable form. Therefore, Applicant respectfully submits that dependent Claims 15/4, 15/7, 15/11, 16/15/4, 16/15/7, 16/15/11 and 19/18 are in allowable form.

New Claims

Applicant has added new Claims 29-40 which recite a heat treating furnace that includes a hot zone enclosure with first and second slots, a plenum extending circumferentially around said hot zone enclosure, a plenum end wall disposed in generally parallel relation to an end wall of said hot zone enclosure, and first and second dampers disposed in the plenum end wall in a coplanar arrangement generally parallel to the end wall of the hot zone enclosure. New Claims 29-40 are supported in sections of the Specification and Drawings, including paragraphs [0021]-[0040], and Figs. 1-3. Therefore, new Claims 29-40 do not contain new matter.

Neither Pfau et al. nor Even teach or suggest a plenum extending circumferentially around a hot zone enclosure, a plenum end wall disposed in generally parallel relation to an end wall of the hot zone enclosure, and first and

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second dampers disposed in the plenum end wall in a coplanar arrangement generally parallel to the end wall of the hot zone enclosure. Instead, Pfau et al. teaches first and second throttle valves (20) located in conduits (19, 19'). The throttle valves (20) are not disposed in a plenum end wall in a coplanar arrangement generally parallel to the end wall of the hot zone enclosure. Even teaches a tuyere gate for a furnace, with no discussion of dampers, plenum walls, or hot zone enclosures. Therefore, Applicant respectfully submits that new Claims 29-40 are allowable over Pfau and Even.

Conclusion

In light of the foregoing amendments and remarks, the Applicant believes that the application is in a condition for allowance. The Examiner is encouraged to contact the Applicant's undersigned attorney if the Examiner believes that issues remain regarding the allowability of this application.

Respectfully submitted,

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